SANTA CRUZ BIOTECHNOLOGY, INC.

YIPF7 siRNA (h): sc-88855

BACKGROUND

The YIP1 family consists of a group of small membrane proteins that bind Rab GTPases and function in membrane trafficking and vesicle biogenesis. YIPF7 (YIP1 domain family, member 7), also known as FinGER9 or YIP1B (YPT-interacting protein 1 B), is a 280 amino acid multi-pass membrane protein of the endoplasmic reticulum (ER). Belonging to the YIP1 family, YIPF7 is encoded by a 1 kilobase transcript and is singularly expressed in heart. Subcellular YIPF7 localizes to the Golgi apparatus and membranes with an ER-like background, but concentrates at the juxtanuclear region. Encoded by a gene that maps to human chromosome 4p12, YIPF7 exists as four alternatively spliced isoforms. The initiator for YIPF7 is undetermined, but it is thought to be either Met-1 or Met-25.

REFERENCES

1. Tang, B.L., et al. 2001. A membrane protein enriched in endoplasmic reticulum exit sites interacts with COPII. J. Biol. Chem. 276: 40008-40017.
2. Calero, M., et al. 2003. Dual prenylation is required for Rab protein localization and function. Mol. Biol. Cell 14: 1852-1867.
3. Jin, C., et al. 2005. Human Yip1A specifies the localization of Yif1 to the Golgi apparatus. Biochem. Biophys. Res. Commun. 334: 16-22.
4. Yoshida, Y., et al. 2008. YIPF5 and YIF1A recycle between the ER and the Golgi apparatus and are involved in the maintenance of the Golgi structure. Exp. Cell Res. 314: 3427-3443.
5. Kano, F., et al. 2009. Yip1A regulates the COPI-independent retrograde transport from the Golgi complex to the ER. J. Cell Sci. 122: 2218-2227.
6. Dykstra, K.M., et al. 2010. Yip1A structures the mammalian endoplasmic reticulum. Mol. Biol. Cell 21: 1556-1568.
7. SWISS-PROT/TrEMBL (Q8N8F6). World Wide Web URL: http://www.uniprot.org/uniprot/Q8N8F6

CHROMOSOMAL LOCATION

Genetic locus: YIPF7 (human) mapping to 4p12.

PRODUCT

YIPF7 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see YIPF7 shRNA Plasmid (h): sc-88855-SH and YIPF7 shRNA (h) Lentiviral Particles: sc-88855-V as alternate gene silencing products.

For independent verification of YIPF7 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-88855A, sc-88855B and sc-88855C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

YIPF7 siRNA (h) is recommended for the inhibition of YIPF7 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor YIPF7 gene expression knockdown using RT-PCR Primer: YIPF7 (h)-PR: sc-88855-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.